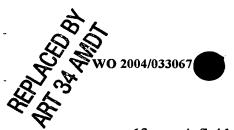


What is claimed is:

- 1. A fluid filter arrangement comprising:
 - a housing having a wall defining a closed end, an open end, and an , (a) interior volume;
 - a filter cartridge oriented within said interior volume of said housing; (b) said filter cartridge including a tubular construction of filter media defining an open filter interior;
 - said tubular construction of filter media having a first end; (i) and
 - (c) a projection arrangement constructed and arranged to space said filter cartridge from said housing wall to define a fluid flowpath between said filter cartridge and said housing wall.
- 2. A fluid filter arrangement according to claim 1 wherein:
 - (a) said projection arrangement is part of a plate including a base and a sidewall;
 - said projection arrangement comprising at least one projection (i) in extension from at least one of said base and said sidewall.
- 3. A fluid filter arrangement according to claim 2 wherein:
 - said filter cartridge includes an end cap secured to said first end of (a) said tubular construction of filter media; said end cap defining an aperture in fluid communication with said open filter interior;
 - said end cap comprising said plate including said projection (i) arrangement.
- 4. A fluid filter arrangement according to claim 3 wherein:
 - (a) said at least one projection is in engagement with said housing;
 - (i) said fluid flowpath being defined by a region between: said at least one projection, said sidewall, and said base.
- 5. A fluid filter arrangement according to claim 4 wherein:
 - (a) said projection arrangement includes a plurality of projections.



- 6. A fluid filter arrangement according to claim 5 wherein:
 - (a) each of said projections extends axially to engage said housing.
- 7. A fluid filter arrangement according to claim 6 wherein:
 - (a) each of said projections extends axially from said sidewall of said endcap.
- 8. A fluid filter arrangement according to claim 7 wherein:
 - (a) said sidewall includes a media-containing portion that forms a continuous wall around said filter media;
 - (i) said media-containing portion extending from said base and having an end;
 - (A) each of said projections being in extension from said end of said media-containing portion.
- 9. A fluid filter arrangement according to claim 8 wherein:
 - (a) each of said projections includes a free end;
 - each free end of said projections engaging a thread plate of said housing adjacent to said open end.
- 10. A fluid filter arrangement according to claim 5 wherein:
 - (a) each of said projections extends radially to engage said housing.
- 11. A fluid filter arrangement according to claim 10 wherein:
 - (a) each of said projections extends radially from said base of said endcap.
- 12. A fluid filter arrangement according to claim 11 wherein:
 - (a) said sidewall includes a media-containing portion that forms a continuous wall around said filter media;
 - (i) said media-containing portion extending from said base; and
 - (ii) said projections being generally orthogonal relative to said media-containing portion.



- 13. A fluid filter arrangement according to claim 12 wherein:
 - (a) said housing wall includes a protrusion arrangement; and
 - (b) each of said projections includes a free end;
 - (i) each free end of said projections engaging said protrusion arrangement.
- 14. A fluid filter arrangement according to claim 2 wherein:
 - (a) said filter cartridge includes an end cap secured to said first end of said tubular construction of filter media; said end cap defining an aperture in fluid communication with said open filter interior;
 - (b) said plate is a separate piece from said end cap and is oriented between said end cap and said open end of said housing.
- 15. A fluid filter arrangement according to any one of claims 2-14 wherein:
 - (a) said filter media includes pleated media and a second end opposite of said first end;
 - (b) said end cap is a first end cap; and
 - (c) said filter cartridge further includes:
 - (i) a second end cap secured to said second end of said filter media;
 - (A) said second end cap being closed; and
 - (ii) an inner tubular liner circumscribed by said pleated media;
 - (A) said inner tubular liner extending between said first end cap and said second end cap.
- 16. A filter cartridge comprising:
 - (a) a tubular construction of filter media defining an open filter interior;
 - (i) said tubular construction of filter media having a first end; and
 - (b) an end cap secured to said first end of said tubular construction of filter media; said end cap defining an aperture in fluid communication with said open filter interior; said end cap including a base, and a sidewall;



- (i) said sidewall including a media-containing portion that forms a continuous wall around said filter media;
 - (A) said media-containing portion extending from said base and having an end;
 - (B) said media-containing portion being generally orthogonal to said base; and
- (c) a projection arrangement comprising a plurality of projections in extension from at least one of said base and said media-containing portion.
- 17. A filter cartridge according to claim 16 wherein:
 - (a) each of said projections extends axially from at least one of said base and said media-containing portion.
- 18. A filter cartridge according to claim 16 wherein:
 - (a) each of said projections extends axially from said sidewall of said endcap.
- 19. A filter cartridge according to claim 17 wherein:
 - (a) each of said projections extends from said end of said mediacontaining portion.
- 20. A filter cartridge according to claim 16 wherein:
 - (a) each of said projections extends radially from at least one of said base and said media-containing portion.
- 21. A filter cartridge according to claim 20 wherein:
 - (a) each of said projections extends radially from said base of said endcap.
- 22. A filter cartridge according to claim 21 wherein:
 - (a) said projections are generally orthogonal relative to said mediacontaining portion.



- 23. A filter cartridge according to claim 16 wherein:
 - (a) said projection arrangement is an integral part of said end cap.
- 24. A filter cartridge according to claim 16 wherein:
 - (a) said projecting arrangement is a separate piece from said end cap.
- 25. A filter cartridge according to any one of claims 16-24 wherein:
 - (a) said filter media includes pleated media and a second end opposite of said first end;
 - (b) said end cap is a first end cap; and
 - (c) said filter cartridge further includes:
 - (i) a second end cap secured to said second end of said filter media;
 - (A) said second end cap being closed; and
 - (ii) an inner tubular liner circumscribed by said pleated media;
 - (A) said inner tubular liner extending between said first end cap and said second end cap.
- 26. A filter assembly comprising a fluid filter arrangement according to any one of claims 1-15; the filter assembly comprising:
 - (a) a filter head having a fluid flow inlet port and fluid flow outlet port; and
 - (b) the filter arrangement is releasably secured to said filter head.
- 27. A method of making a filter; the method comprising:
 - (a) inserting a filter cartridge and a projection arrangement into an open end of a housing; and
 - (b) engaging projections on the projection arrangement against a portion of the housing to secure the filter cartridge in the housing.
- 28. A method according to claim 27 wherein:
 - (a) the filter cartridge includes an end cap having the projections extending therefrom; and



- (b) said step of engaging includes engaging the projections from the end cap against a portion of the housing.
- 29. A method according to claim 27 wherein:
 - (a) said step of inserting includes inserting a filter cartridge and then inserting a separate plate into the open end of the housing;
 - (i) the separate plate including the projecting arrangement.
- 30. A method according to any one of claims 27-29 wherein:
 - (a) said step of engaging includes providing a threadplate in the housing open end and engaging the projections axially against the threadplate.
- 31. A method according to any one of claims 27-29 wherein:
 - (a) said step of inserting includes snapping the projections over a radial protrusion in the housing; and
 - (b) said step of engaging includes engaging the projections against the radial protrusion.